



TRADITIONAL HERBAL CURE OF DIABETES FOUND AMONG RURAL COMMUNITIES OF SULTANPUR DISTRICT (UTTAR PRADESH)

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ABSTRACT

The present investigation is based on 41 indigenous plant species belonging to 23 Angiospermic families found in Sultanpur district, Uttar Pradesh. These indigenous plants were used as traditional phytotherapies for the treatment of Diabetes. The rural inhabitants of the area classified these traditional phytotherapies on the basis of uses of various plant parts and method of their uses. Several traditional phytotherapies were investigated from the rural inhabitants of the area. Now a day, Diabetes is a global problem. So, the present study aims to the improvement of medicinal uses of indigenous plants of the selected areas for Diabetes and to know the traditional phytotherapy which provide the base for clinical research to study the active compounds present in such plants which are responsible for the antidiabetic effects.

KEYWORDS: Traditional phytotherapy; Diabetes; Indigenous flora; Sultanpur.

1. INTRODUCTION:

Medicinal plants have been used in various diseases since time immemorial. The primitive man used herbs as therapeutic agents and medicament, which they were able to procure easily. The nature has provided abundant plant wealth for all living creatures, which possess medicinal virtues. The essential values of some plants have long been published but a large number of them remains unexplored as yet. So, there is necessity to explore their uses and to conduct pharmacological studies to ascertain their therapeutic properties (Prazapati, 2004; Rao 1989, 1994). Despite considerable progress in the management of Diabetes by conventional synthetic drugs, the search for natural anti-diabetic plant products for controlling Diabetes is going on. There are many hypoglycemic plants known through the folklore but their introduction into the modern therapy awaits the discovery of animal test system that closely parallel to the pathological course of Diabetes in human. Hypoglycemic activity has been reported in many plants during the last twenty years (Anonymous, 1992).

Approximately 343 plants of the world have been tested for the blood glucose lowering effect in the laboratory experiments. Of these plants, 158 are claimed to be used in the Ayurveda (Jain 1975, 1991; Jain and Puri 1984; Rahman and Zaman, 1989). In fact, Diabetes now a day is a global problem. So, the present study aims to the improvement of medicinal uses of indigenous plants of the selected areas for Diabetes, to know the traditional phytotherapy which provide the base for clinical research to study the active compounds of such antidiabetic plants which are responsible for the hypoglycemic activities. The objective of the present study is to bring the antidiabetic medicinal plants sector on a firm scientific footing, raise awareness, add value to the resource and contribute to the socio-economic wellbeing of the country particularly and throughout the world generally.

2. MATERIALS AND METHODS:

2.1 Study area:

The district Sultanpur lies on both sides of river Gomati at 25° 59' to 25° 71' N latitude and 81° 32' to 82° 41' E longitude. It is bordered by the district Faizabad on the north, Jaunpur and Azamgarh districts on the east, Pratapgarh and Amethi districts on the south/south-west, Raebareilly and Barabanki districts on the west/north-west, respectively. The average total annual rainfall was 139.96 mm. Average maximum temperature in summer was 31.6°C–40.5°C and 17.4°C–29.8°C even in winter, respectively. The maximum relative humidity varies between 82.0% and 88.5%. The climate is monsoonic and year is divisible into three rainy, winter and summer seasons.

2.2 Methodology:

Sultanpur district being rich in indigenous herbal resources, offers a great scope for ethnobotanical and ethnopharmacological studies. The present enumeration is based on 41 indigenous plant species used as traditional phytotherapy for the control and treatment of Diabetes by rural inhabitants of the district. Frequent field trips were conducted during July, 2011 to June, 2012 in order to get information. Various interviews were conducted with elderly persons, local hakims (Vaidyas), and household ladies in different villages of the area individually during surveys. Indigenous plants were collected, identified according to flora Gorakhpuriansis (Srivastava, 1982). Confirmation of plants were done with the help of herbarium of Department of Botany, T.D.P.G. College, Jaunpur (U.P.) and voucher specimens were deposited in the herbarium for future references.

3. RESULTS:

Results of the present investigation were based on 41 medicinal plant species

belonging to 23 angiospermic families. Among them monocots represented by 3 families and dicots by 20 families (Table 1). Indigenous plants used for Diabetes by rural inhabitants of the area are arranged alphabetically followed by their Botanical names, local names and their respective families.

Table 1: Indigenous medicinal plant species used for treatment of Diabetes

S.N.	Botanical name	Local name	Family
1	<i>Acacia nilotica</i> L.	Babul	Mimosaceae
2	<i>Aegle marmelos</i> L.	Bel	Rutaceae
3	<i>Aloe vera</i> Mill.	Ghrat Kumari	Liliaceae
4	<i>Allium cepa</i> L.	Piaz	Liliaceae
5	<i>Allium sativum</i> L.	Lahsun	Liliaceae
6	<i>Adhatoda vasica</i> Nees	Adusa	Acanthaceae
7	<i>Cassia fistula</i> L.	Amaltas	Caesalpiniaceae
8	<i>Catharanthus roseus</i> L.	Sadabahar	Apocynaceae
9	<i>Cajanus cajan</i> L.	Arhar	Papilionaceae
10	<i>Cicer arietinum</i> L.	Chana	Papilionaceae
11	<i>Cichorium intybus</i> L.	Kasni	Asteraceae
12	<i>Clerodendrum viscosum</i> Vent.	Bharangi	Verbenaceae
13	<i>Coccinia indica</i> Wright & Arn.	Kanduri	Cucurbitaceae
14	<i>Cyperus rotundus</i> L.	Motha	Cyperaceae
15	<i>Daucus carota</i> L.	Gajar	Apiaceae
16	<i>Fagonia cretica</i> L.	Dhamana	Euphorbiaceae
17	<i>Ficus bengalensis</i> L.	Bargad	Moraceae
18	<i>Ficus glomerata</i> Roxb.	Gular	Moraceae
19	<i>Fumaria indica</i> L.	Papra	Fumariaceae
20	<i>Hordeum vulgare</i> L.	Jow	Poaceae
21	<i>Kickxia ramosissima</i> (Wall.)	Khunger booti	Scrophulariaceae
22	<i>Lagenaria vulgaris</i> L.	Lauki	Cucurbitaceae
23	<i>Madhuca indica</i> Gmelin	Mahua	Sapotaceae
24	<i>Mangifera indica</i> L.	Aam	Anacardiaceae
25	<i>Melia azedarach</i> L.	Meethi neem	Meliaceae
26	<i>Momardica charantia</i> L.	Karela	Cucurbitaceae
27	<i>Moringa oleifera</i> Lam.	Sahijan	Moringaceae
28	<i>Ocimum album</i> L.	Chhoti tulsi	Lamiaceae
29	<i>Ocimum sanctum</i> L.	Tulsi	Lamiaceae
30	<i>Psidium guajava</i> L.	Amrood	Myrtaceae
31	<i>Rosa sinensis</i> L.	Chhoti gulab	Rosaceae
32	<i>Saraca asoca</i> (Roxb.) DeWilde	Ashoka	Caesalpiniaceae
33	<i>Solanum nigrum</i> L.	Kali makoi	Solanaceae
34	<i>Syzygium cumini</i> Skeels	Jamun	Myrtaceae

35	<i>Tylophora hirsutus L.</i>	Glow	Asclepiadaceae
36	<i>Triticum aestivum L.</i>	Gahun	Poaceae
37	<i>Trigonella foenum Graecum L.</i>	Methi	Papilionaceae
38	<i>Vigna mungo (Burm. f.) Walp.</i>	Moong	Papilionaceae
39	<i>Vigna sinensis (Burm. f.) Walp.</i>	Lobia	Papilionaceae
40	<i>Withania somnifera (L.) Dunal.</i>	Ashwagandha	Solanaceae
41	<i>Zea mays L.</i>	Makka	Poaceae

4. DISCUSSION:

Local people of the area especially old men and ladies termed as specialists treat the Diabetes by using indigenous medicinal plants, and they think that traditional medicines are better and permanent cure for this disease. So, the indigenous knowledge, accordingly, continues to provide the building blocks for the development in rural communities (Rahman and Zaman, 1989). During the study, it was found that the traditional phytotherapies were more adaptable and acceptable from old time to present. The widespread use of folk herbal remedies appears to be not only a case of preference but also of a situation without alternative choices. Such a system of medical treatment on which the majority of the population has been relying upon for generations with considerable success, should not be overlooked for further medical investigation, especially on those plants which have not been looked at for medical research, although the same have been in use by local inhabitants over hundreds of years.

Diabetes now a day is a global problem because every year a considerable amount of foreign exchange is involved in the import of drugs of foreign origin. The utilization of indigenous drug resources with importance of the local industry on the one hand and will minimize the expenditure incurred on the purchase of foreign drugs on the other. In view of the economic importance of medicinal indigenous plants, research and development efforts should be focussed on these plants. So, it is strongly recommended to carry out phytochemical and clinical research work of the indigenous plants to prove and substantiate the traditional phytotherapies of the rural people. The clinically active plants should be studied along with active compounds which are responsible for the hypoglycaemic activities. Compounds from these plants with proven results may then be synthesized in large amount commercially for wider circulation throughout the world for global marketing.

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